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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/671.951

09/26/2003

Denny Jaeger

4333

7296

7590

08/23/2006

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EXAMINER

VUU, HENRY

ART UNIT

PAPER NUMBER

2193

DATE MAILED: 08/23/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/671,951	JAEGER, DENNY	
	<b>Examiner</b>	<b>Art Unit</b>	
	Henry Vuu	2179	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133): Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on Sept. 26, 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on Sept. 26, 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☒ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claim 1-6, 8-16, 18-20 are rejected under 35 U.S.C. 102(e) as being anticipated by Kuchinsky et al. (Pub No. 2002/0178185).

As to independent claim 1, Kuchinsky et al. teaches a method for illustrating (see e.g., para. [0205] – i.e., Diagram Editor 50) assigned relationships (see e.g., para. [0205] and [0206] – i.e., “verbs” are implemented as Diagram Interaction 58 between graphic objects) between graphic objects (see e.g., para. [0207] – i.e., two “nouns” are connection by a “verb” by drawing a graphic directional indicator between graphical icons) comprising: displaying the first and second graphic objects (see e.g., Fig. 11 – i.e. Diagram Nodes 56 comprises first and second graphic objects displayed on Diagram Editor 50, for instance “Dkk” Diagram Node 56 “FRP” Diagram Node 56 corresponds to the first and second graphic objects), with the first graphic object having an assigned relationship with the second graphic object (see e.g., para. [0206] and Fig 11 – i.e. “verbs” are used to specify and assign relationships between “nouns” such as “Inhibits”, “Promotes” or “Binds To”), displaying a graphic directional indicator between

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the first and second graphic object (see e.g., para. [0207] and Fig. 11 – i.e., two “nouns” are connected using “verbs” by means of Diagram Interactions 58) in response to a user input (see e.g., para. [0205] – i.e., the user can put together a diagram representing relationships between biological objects by means of utilizing Diagram Editor 50), and the assigned relationship between the first and second graphic objects be shown (see e.g., para. [0207] – i.e., the color of the arrow represents the assigned relationship between the first and second graphic objects and are further displayed on Diagram Editor 50).

As to independent claim 11, claim 11 only differs from claim 1 only in that claim 11 is an apparatus claim using a storage medium readable by a computer (computer-readable medium – see e.g., para. [0037]), embodying a program of instructions (instructions – see e.g., para. [0037]) executable by the computer (see e.g., para. [0037] – execution of the instructions are executed by the processor of the computer) to perform the steps of claim 1, wherein claim 1 is a method claim. Thus, claim 11 is analyzed as previously discusses with respect to claim 1 above.

As to dependent claim 2, Kuchinsky et al. further teaches the directional indicator includes an arrow (arrow – see e.g., para. 0207]).

As to claim 3, Kuchunsky et al. further teaches the graphical directional indicator includes an arrow of a particular color (color-encoded arrow – see e.g., para. [0207]) to indicate a type of relationship between the first and second graphic object (see e.g., prar. [0207] – i.e., a red arrow represents a verb with assigned relationship of “Promote” between graphical icons).

As to dependent claim 4, Kuchinsky et al. further teaches displaying (Diagram Editor 50 – see e.g., Fig. 11) the graphic directional indicator (Diagram Interaction 58 – see e.g., Fig. 11) to point from the first graphic object to the second graphic object (see Fig. 11 – “Dkk” Diagram Node 56 points to “FRP” Diagram Node 56) to indicate the assigned relationship is from the first graphic object to the second graphic object (see e.g., para. [0207] – i.e., “verbs” are directional in that a red arrow running from object A to object B indicates that “A Inhibits B”).

As to dependent claim 5, Kuchinsky et al. further teaches a method comprising: displaying a third graphic (see e.g., Fig. 11 – i.e. Diagram Nodes 56 encompasses a third graphic object displayed on Diagram Editor component 50, for instance “Wnt” Diagram Node 56 corresponds to the third graphic object), with the third graphic object having an assigned relationship with the second graphic object (see e.g., para. [0206] and Fig 11 – i.e. “verbs” are used to specify and assign relationships between “nouns” such as “Inhibits”, “Promotes” or “Binds To”), displaying a second graphic directional indicator between the second and third graphic object (see e.g., para. [0207] and Fig. 11 – i.e., two “nouns” are connected using “verbs” by means of Diagram Interactions 58) in response to a user input (see e.g., para. [0205] – i.e., the user can put together a diagram representing relationships between biological objects by means of utilizing Diagram Editor 50), and the assigned relationship between the second and third graphic objects be shown (see e.g., para. [0207] – i.e., the color of the arrow represents the assigned relationship between the first and second graphic objects and are further displayed on Diagram Editor 50).

As to dependent claim 6, Kuchinsky et al. further teaches displaying (Diagram Editor 50 – see e.g., Fig. 11) the second graphic directional indicator (Diagram Interaction 58 – see e.g., Fig. 11) to point from the second graphic object to the third graphic object (see Fig.11 – “FRP” Diagram Node 56 points to “Wnt” Diagram Node 56) to indicate the assigned relationship is from the second graphic object to the third graphic object (see e.g., para. [0207] – i.e., “verbs” are directional in that a red arrow running from object A to object B indicates that “A Inhibits B”).

As to dependent claim 8, Kuchinsky et al. further teaches displaying (see e.g., para. [0205] – i.e., Diagram Editor 50 is used to display the assigned relationship of graphic objects) the first graphic directional indicator (see e.g., para. [0207] and Fig. 11 – i.e., two “nouns” are connected using “verbs” by means of Diagram Interactions 58) to point from first graphic object to second graphic object (see Fig.11 – “Dkk” Diagram Node 56 points to “FRP” Diagram Node 56) in response to a user’s command (see e.g., para. [0207] – i.e. pressing a button using a pointing device, such as a mouse) for the second object (second icon – see e.g., para. [0207]), and displaying the second graphic directional indicator (Diagram Interaction 58 – see e.g., Fig. 11) includes displaying the second graphic graphical direction indicator to point from the second graphic object to the third graphic object (see Fig.11 – “FRP” Diagram Node 56 points to “Wnt” Diagram Node 56) in response to a user’s command for the second object (second icon – see e.g., para. [0207]).

As to dependent claim 9, Kuchinsky et al. further teaches displaying the first graphic direction indicator (see e.g., para. [0207] – i.e., drawing a line that corresponds

to a line with an arrow on Diagram Editor 50 between two “nouns”) includes displaying (see e.g., para. [0205] – i.e., the graphical representation and assignment of graphical objects is displayed on Diagram Editor 50) the graphic directional indicator between the first and second object (see e.g., para [0207] – i.e., an arrow running from object A to object B indicates “A Inhibits B”) in response to user’s command (see e.g., para. [0205] – i.e., the user creates diagrams and assigns relationships by use of Diagram Editor 50) for one of said first and second graphic objects (see e.g., para. [0206] – i.e., the user can build a pictorial story with graphical objects and directional indicators by dragging and dropping items onto Diagram Editor 50 or canvas 52).

As to dependent claim 10, Kuchinsky et al. further teaches the assigned relationship between the first and second graphic objects is a functional relationship (see e.g., para. [0206] and [0207] – i.e., the “nouns” are connected to one another by means of “verbs” which are color-encoded directional arrows, each colored arrow representing different functional attributes, such as “Inhibits”, “Promotes” and “Bind To”).

As to dependent claim 12, claim 12 only differ from claim 2 only in that claim 12 is an apparatus claim using a storage medium (computer-readable medium – see e.g., para. [0037]) to perform the steps of claim 2, wherein claim 2 is a method claim. Thus, claim 12 is analyzed as previously discussed with respect to claim 2.

As to dependent claim 13, claim 13 only differ from claim 3 only in that claim 13 is an apparatus claim using a storage medium (computer-readable medium – see e.g., para. [0037]) to perform the steps of claim 3, wherein claim 3 is a method claim. Thus, claim 13 is analyzed as previously discussed with respect to claim 3.

As to dependent claim 14, claim 14 only differ from claim 4 only in that claim 14 is an apparatus claim using a storage medium (computer-readable medium – see e.g., para. [0037]) to perform the steps of claim 4, wherein claim 4 is a method claim. Thus, claim 14 is analyzed as previously discussed with respect to claim 4.

As to dependent claim 15, claim 15 only differ from claim 5 only in that claim 15 is an apparatus claim using a storage medium (computer-readable medium – see e.g., para. [0037]) to perform the steps of claim 5, wherein claim 5 is a method claim. Thus, claim 15 is analyzed as previously discussed with respect to claim 5.

As to dependent claim 16, claim 16 only differ from claim 6 only in that claim 16 is an apparatus claim using a storage medium (computer-readable medium – see e.g., para. [0037]) to perform the steps of claim 6, wherein claim 6 is a method claim. Thus, claim 16 is analyzed as previously discussed with respect to claim 6.

As to dependent claim 18, claim 18 only differ from claim 2 only in that claim 18 is an apparatus claim using a storage medium (computer-readable medium – see e.g., para. [0037]) to perform the steps of claim 8, wherein claim 8 is a method claim. Thus, claim 18 is analyzed as previously discussed with respect to claim 8.

As to dependent claim 19, claim 19 only differ from claim 9 only in that claim 19 is an apparatus claim using a storage medium (computer-readable medium – see e.g., para. [0037]) to perform the steps of claim 9, wherein claim 9 is a method claim. Thus, claim 19 is analyzed as previously discussed with respect to claim 9.

As to dependent claim 20, claim 20 only differ from claim 10 only in that claim 20 is an apparatus claim using a storage medium (computer-readable medium – see e.g.,



para. [0037]) to perform the steps of claim 10, wherein claim 10 is a method claim.

Thus, claim 20 is analyzed as previously discussed with respect to claim 10.

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 7 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kuchinsky et al. (Pub No. 2002/0178185) in view of Wall et al. (Pub No. 2002/0091736).

As to dependent claim 7, Kuchinsky et al. further teaches displaying (see e.g., para. [0205] – i.e., Diagram Editor 50) the second graphic directional indicator (see e.g., para. [0207] and Fig. 11 – i.e., two “nouns” are connected using “verbs” by means of Diagram Interactions 58) to point from the second graphic object to the third graphic object (see Fig.11 – “FRP” Diagram Node 56 points to “Wnt” Diagram Node 56) in order to indicate an assigned relationship (see e.g., para. [0207] – i.e., “verbs” are directional in that a red arrow running from object A to object B indicates that “A Inhibits B”) between the second and third graphic objects. Kuchinsky et al. does not teach a graphic directional indicator pointing from the third graphic object to the second graphic object in order to indicate that the assigned relationship is from the third graphic object to the second graphic object. Wall et al. teaches a bidirectional arrow that can be used to indicate relationships between nodes (see e.g., para. [0331] – i.e., links can also take

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the form of bidirectional arrows). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the display, displaying of assigned relationship between graphic objects of Kuchinsky et al. with the bidirectional arrow of Wall et al. because the bidirectional arrow of Wall et al. saves memory and is visually less complicated for the user to view (see e.g., para. [0331]).

As to dependent claim 17, claim 17 only differ from claim 7 only in that claim 17 is an apparatus claim using a storage medium (computer-readable medium – see e.g., para. [0037]) to perform the steps of claim 7, wherein claim 7 is a method claim. Thus, claim 17 is analyzed as previously discussed with respect to claim 7.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Prior art US Patent No. 5,701,456 can be applicable and considered as pertinent art to applicant's disclosure. Prior art disclosed by Jacopi et al. teaches a graphical user interface (GUI) that places logical Boolean objects on a graphical condition window, which are connected by flowlines indicating the course of direction by a directional arrow.

### ***Inquiries***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Henry Vuu whose telephone number is (571) 270-1048. The examiner can normally be reached on 8-5.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chanh Nguyen can be reached on (571) 270-1048. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Date: 8/21/06

Examiner's Signature:



Examiner's Initials:

H. V.



CHANH D. NGUYEN  
SUPERVISORY PATENT EXAMINER